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Water Level Management Update

An Update on the 2002 Drawdown

The follow-up drawdown of Pool 8 began as planned on June 17. It was anticipated that it would take 10-12 days for the water level to drop to the target pool level, but "mother nature" had different plans. A drop of 9-inches at the dam in Genoa had already been achieved, but then a rapid rise in the river occurred as a result of storms that dropped large amounts of rainfall across both Minnesota and Wisconsin. Consequently, the drawdown process was postponed for several days until the river crested. On July 3rd, an 18-inch reduction was finally reached.

This level of reduction will be maintained by the Army Corps of Engineers (Corps) as long as there is sufficient flow in the river to maintain a minimum reading on the La Crosse gage of 4.45. **(The La Crosse gage read about 6.5 on July 10.)** For a summary of how flows in the river will dictate the level of the drawdown refer to the chart on page 2.

So far the effects of the drawdown have been scarcely noticeable in the upper end of Pool 8 due to the elevated river flows. This may change as river flows normally drop off rapidly during July and August. As the river flows drop, the effect of the drawdown will move upstream. Boaters should use extra caution when out on Pool 8 as the water level may change quickly from what they have been accustomed to so far this season.

For more information or an up-to-date status report on the drawdown:

- **Call 1-800-218-8917 for a weekly update on the drawdown**
- **Check our web site**
  www.mvp.usace.army.mil/enviro_protection/river_water_study
- **Look on the St. Paul District Corps of Engineers website to monitor flow through Lock and Dam 8 at: www.mvp.usace.army.mil/navigation/ locks_and_dams/8.**
  Go to: Current year hydrological data.

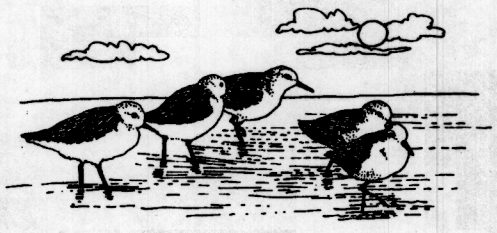
Details of the 2002 Drawdown

- The target water level reduction near La Crosse is 3" or half the reduction of last year (a reading of 4.45 on the La Crosse gage).
- The target water level reduction at Lock and Dam 8 near Genoa will range from 9-18" depending on river conditions.
- The drawdown will continue through mid-September if river conditions permit.

Viewing Opportunities

The best opportunities to view the drawdown and witness the changes in the lower portion of Pool 8 is to explore by boat or take a drive on Highway 26 on the Minnesota side.

Birders may want to take advantage of unique shorebird viewing opportunities, which may occur later on in July when the shorebird migration begins. Shorebirds that breed locally, such as killdeer and spotted sandpipers are already responding to the inviting habitat offered by the exposed mudflats. Last year a total of 22 species of shorebirds was observed during the weekly monitoring surveys.



Projected Water Level Reduction at Different Locations in Pool 8

The chart below illustrates the extent of the water level reduction at particular sites as river flows decrease. Similar to last year, the effects of the drawdown will be most noticeable in the lower end of the pool, particularly from Lawrence Lake and Goose Island south to the dam at Genoa.

Location	River Mile	9-inch Drawdown	12-inch Drawdown	18-inch Drawdown
Lock and Dam 8	679.4	9"	12"	18"
Stoddard	685.0	8"	10"	15"
Brownsville	689.0	7"	8"	12"
Root River	693.7	4"	5"	6"
La Crosse Gage	696.9	3"	3"	3"
La Crosse RR Bridge	699.8	2"	2"	2"
I-90 Bridge	701.8	1"	1"	1"

The level of reduction depends on the amount of flow in the river and on the condition of the navigation channel in Pool 8.

- *At flows above 30,000 cubic feet per second (cfs) the 18" drawdown will be pursued.* ***Higher flows will produce less of an effect in the upper portion of Pool 8.***
- *At flows from 27,000 to 30,000 cfs the 12" drawdown will be pursued,*
- *From 22,000 to 27,000 cfs the 9" drawdown will be pursued.*

As of July 10 river flows were approximately 50,000 cfs.

A Quick Review of the Purpose of the Water Level Reduction

The Mississippi River used to rise and fall in rhythm with nature's cycles. Water levels in the river typically dropped during summer months allowing areas along the river's edge to dry out. Aquatic plants, particularly emergents which grow along the waters edge, depend on this pattern for their long term survival.

These same plants are part of the foundation for the web of life on the river providing food and shelter for fish and wildlife. At one time these plants formed extensive beds in lower Pool 8.

However the system of locks and dams on the river was constructed to maintain artificially high water levels to make the river passable for tows and barges. With the higher water levels, many of these plant beds are smaller or have disappeared completely.

The drawdown will temporarily reduce the water level of the river to a more natural summertime level that will help restore the lost acres of aquatic plants. This is an important step in an integrated approach to renewing important fish and wildlife habitat on the river.

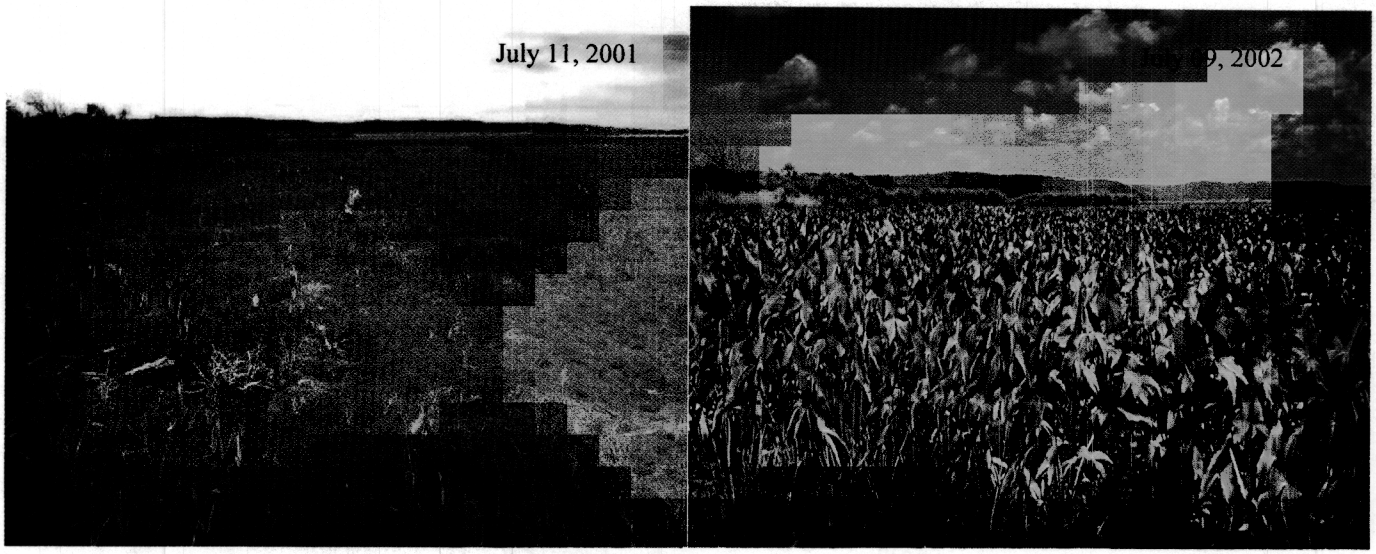
Monitoring Activities

Preliminary Evaluation

Scientists from the U.S. Geological Survey Upper Midwest Environmental Sciences Center conducted a preliminary survey of the vegetation survival and response this spring before the drawdown began. At that time, research biologist Kevin Kenow observed "We are already seeing the benefits of last year's drawdown. Arrowhead, an important emergent perennial plant, is growing from tubers produced by plants that were established from seed on exposed mud flats and sandbars in 2001."

Arrowhead is a dense erosion-buffering plant which grows in shallow water. It provides food and cover for a variety of wildlife. Seeds and tubers provide high quality food for ducks, geese and swans. Muskrats consume leaves and tubers. Large stands of arrowhead provide shelter for marsh birds, shorebirds and waterfowl, and can serve as nurseries for a variety of fish species.

Resource managers had anticipated that this important plant would reestablish persistent beds as a result of the drawdown.



USFWS photo

WI DNR photo

These photos illustrate the dramatic changes that have occurred to the vegetation on some sites as a result of the water level reduction program. This arrowhead bed, located along Raft Channel, is still expanding as a result of the drawdown this year.

Current Monitoring Activities

Scientists will again be monitoring the plant response to the drawdown including both emergent and submersed aquatics. Similar to last year, other aspects will also be monitored including shorebird and waterfowl use, avian botulism, water quality, and nitrogen cycling.

An opportunity also exists for the public to help monitor the water level near La Crosse. Gages visible to the public, have been installed at two sites including the footbridge at Houska Park and the Municipal Boat Marina in La Crosse. A bold, white line on the gages indicate the lowest level of the drawdown based on a maximum 3" reduction at the La Crosse gage.

Water Level Management Update
3550 Mormon Coulee Rd
La Crosse, WI 54601

The effect of the drawdown will move upstream as river flows drop during the summer. ***Please be alert when boating on Pool 8 this summer!***

Contact the following people if you have questions or comments:

Gretchen Benjamin
Wisconsin Dept. of Natural Resources
3550 Mormon Coulee Road
La Crosse, WI 54601
(608) 785-9982
Wisconsin DNR Contact

Dick Otto
US Army Corps of Engineers
1114 South Oak Street
La Crescent, MN 55947
(507)895-6341
Local Army Corps of Engineers Contact

Tim Schlagenhaft
Minnesota Department of Natural Resources
1801 South Oak Street
Lake City, MN 55041
(651) 345-3365
Minnesota DNR Contact

Jim Nissen
US Fish and Wildlife Service
555 Lester Ave
Onalaska, WI 54650
(608) 783-8401
District Manager for Pools 7 and 8 – USFWS